


























## LIST OF MAP UNITS

[See Description of Map Units (in pamphlet) for complete unit descriptions. Some unit exposures on the map are too small to distinguish the color for unit identification. These units are labeled where possible, and all units are identified by attributes in the database.]

## UNCONSOLIDATED DEPOSITS

On	Surficial deposits, undisturbed (Quaternary)
On	Alluvium along major rivers and in terraces (Holocene)
On	Marine tidal flat and estuarine deposits (Holocene)
On	Estuarine deposits (Holocene)
On	Alluvial fan deposits (Holocene and Upper Pleistocene)
On	Deltaic and distributary deposits (Holocene)
On	Landslide and colluvial deposits (Holocene and Upper Pleistocene)
On	Beach deposits (Holocene)
On	Lacustrine, swamp, and fine silt deposits (Holocene and Upper Pleistocene)
On	Folian deposits (Holocene)
On	Deltaic deposits (Holocene and Upper Pleistocene)
On	Glacial deposits
On	Young moraine deposits (Holocene)
On	Younger network deposits (Holocene)
On	Glaciostatic deposits (Holocene and Upper Pleistocene)
On	Major moraine and kame deposits (Upper Pleistocene)
On	Modified glacial deposits (Upper Pleistocene)
On	Glaciostatic (Upper Pleistocene)
On	Outwash on plains, valley trains, and fans (Upper Pleistocene)
On	Glacial deposits (Upper Pleistocene)
On	Boulder zone (Formerly Upper Pleistocene)
On	Interstratified glacial deposits (Upper Pleistocene)
On	Older glacial deposits (Middle or Lower Pleistocene)

**The** Felsic volcanic and sub-volcanic rocks (Eocen

	Mafic volcanic rocks (Eocene)
	Dikes and sills (Tertiary to Cretaceous)
	Intermediate to mafic volcanic rocks (Palaeocene)
	Iron-rich (mostly Tertiary or Cretaceous)
	Granite, gneiss, amphibolite (Palaeocene to Eocene)
	Intermediate and felsic volcanic rocks (Cretaceous)
	Mafic dikes, sills, and plugs (Eocene?)
	Niobite granitoids and related rocks (Eocene and, in Middle Tertiary)
	Granite and/or Geyserite (Eocene Tertiary, Cretaceous or older)
<b>PLUTONIC ROCKS</b>	
	Intermediate rocks, amphibolite (Eocene)
	Intermediate intrusive rocks (Palaeocene and latest Eocene)
	Granitic rocks (Eocene and late Eocene)
	Gabbroanite (Eocene?) or Eocene?
	Hyposilic granitic rocks (Palaeocene?)
	Granitic rocks of Palaeocene age (Palaeocene)
	Basic amphibolite/gabbroite
	Basaltic diorite
	Granitic rocks, amphibolite (Palaeocene to Late Cretaceous)
	Gabbroanitic rocks
	Granitic rocks (Tertiary and/or Cretaceous)
	Granitic (Cretaceous)
	Granodiorite (Late Cretaceous)
	Quartz diorite (Late Cretaceous)
	Quartz monzonite, monzonite, and syenite (Late Cretaceous)
	Ultramafic rocks (Late Cretaceous)

**Key** Older granite (Cretaceous, Cenozoic)

















76a	76a	Sedimentary rocks, undivided (Tertiary)
76b	76b	Korai Group, undivided (Pleistocene to Oligocene)
76c	76c	Sorting Formation (Pleistocene and Miocene)
76d	76d	Ringai Formation (Pleistocene)
76e	76e	Tavak Formation (Miocene and Oligocene)
76f	76f	Ringai Conglomerate, undivided (Oligocene)
76g	76g	Tavakia Formation (Miocene and Oligocene)
76h	76h	Volcaniclastic sedimentary rocks (Eocene or younger)
76i	76i	Washkora Formation (Eocene)
76j	76j	Well Fortified Formation (Eocene and Paleocene)
76k	76k	Along Ridge Formation (Lower Eocene and upper Paleocene)
76l	76l	Chickadee Formation (Lower Eocene and upper Paleocene)
76m	76m	Copper Lake Formation (undivided Lower Eocene and Paleocene?)
76n	76n	Groopvale of the Yavak Hills (Eocene?)
76o	76o	Kodak Formation (Tertiary or Cretaceous)
76p	76p	Saltish, Mountain series of Mages and others (1898) (Tertiary Cretaceous, Mesozoic)
76q	76q	Kingsley Formation (Tertiary Cretaceous, Mesozoic and Campanian)
76r	76r	Cape Current series of Condyly (1878) (Tertiary Cretaceous)
76s	76s	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76t	76t	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76u	76u	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76v	76v	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76w	76w	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76x	76x	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76y	76y	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76z	76z	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76aa	76aa	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76ab	76ab	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76ac	76ac	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76ad	76ad	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76ae	76ae	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76af	76af	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76ag	76ag	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76ah	76ah	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76ai	76ai	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76aj	76aj	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76ak	76ak	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76al	76al	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76am	76am	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76an	76an	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76ao	76ao	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76ap	76ap	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76aq	76aq	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76ar	76ar	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76as	76as	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76at	76at	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76au	76au	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76av	76av	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76aw	76aw	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76ax	76ax	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76ay	76ay	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76az	76az	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76ba	76ba	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bb	76bb	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bc	76bc	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bd	76bd	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76be	76be	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bf	76bf	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bg	76bg	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bh	76bh	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bi	76bi	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bj	76bj	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bk	76bk	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bl	76bl	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bm	76bm	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bn	76bn	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bo	76bo	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bp	76bp	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bq	76bq	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76br	76br	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bs	76bs	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bt	76bt	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bu	76bu	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bv	76bv	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bw	76bw	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bx	76bx	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76by	76by	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)
76bz	76bz	Albion Formation (Tertiary Cretaceous, Mesozoic, to upper Lower Cretaceous, Albian)

**Key** Older granite (Cretaceous, Cenozoic)

Leuconotoceras and trochiliferans (Early Cambrian, Avalonia, Baltica to Rheic Ocean)	
Quartzite metacarbonate (Ordovician and/or) Jaramac?	
Alaska-Alutian Range Barablos (Jurassic phase)	
Trochiliferans (Late Permian)	
Quartzite, metacarbonate, and mafic (Jurassic)	
Grauwackite and quartz monomictite (Middle and Late Early Jurassic)	
Mafic and ultramafic volcanic rocks (Middle and Late Early Jurassic)	
Pluton province in the Border Ranges Fault Zone	
Quartzite diorite and maficite (Middle and Early Jurassic)	
Mafic and ultramafic rocks, undifferentiated (Middle Jurassic or older?)	
Quartzite diorite to diorite (Late Triassic)	
<b>MELANGE AND METAMORPHIC ROCKS</b>	
Cataclastic (Eocene?) and Cretaceous, metamorphic age)	
Gneiss (Triassic or Cretaceous, metamorphic age)	
Yukon Gneiss (upper Cretaceous)	
Metasandstone rocks, undifferentiated	
Schist	
Melange of Keweenaw Peak of Keweenaw and others (1977)	
Metamorphosed intermediate volcanic and sedimentary rocks (Cretaceous)	
Prime schist (Cretaceous)	
Metamorphosed mafic volcanic and sedimentary rocks (Mesozoic and Paleozoic)	
Melange and Yukon Complexes, undifferentiated (Cretaceous to Mesozoic)	
Gabbro (Mesozoic)	
Ultramafic gabbro rocks (Mesozoic)	
Highly Complex, graywacke and conglomerate (Early Cretaceous to Late Paleozoic)	
Metagabbro, metabasite, and metabasite (Early Cretaceous to Late Paleozoic)	
Greenish Complex, basalt and chert (Early Cretaceous, Avalonia to Middle Jurassic)	
Metagabbro and metabasite (Cretaceous, metamorphic age)	
Kahkoon Complex (Jurassic, Triassic, and Permian?) or older?	
Metagabbro, metabasite, and metabasite (Early Jurassic to Permian, metamorphic age)	
Metagabbro, metabasite, and metabasite (Early Jurassic to Permian, metamorphic age)	
Marble (Jurassic, metamorphic age; Permian?, gneissic age)	
Metasite to andesite (metamorphic rocks) (Triassic?, Permian, Cretaceous, and Permian, unknown)	
<b>BEDROCK</b>	
Bedrock, basalt	

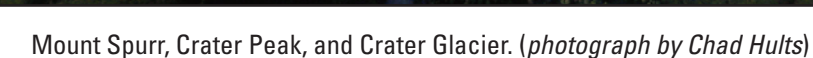
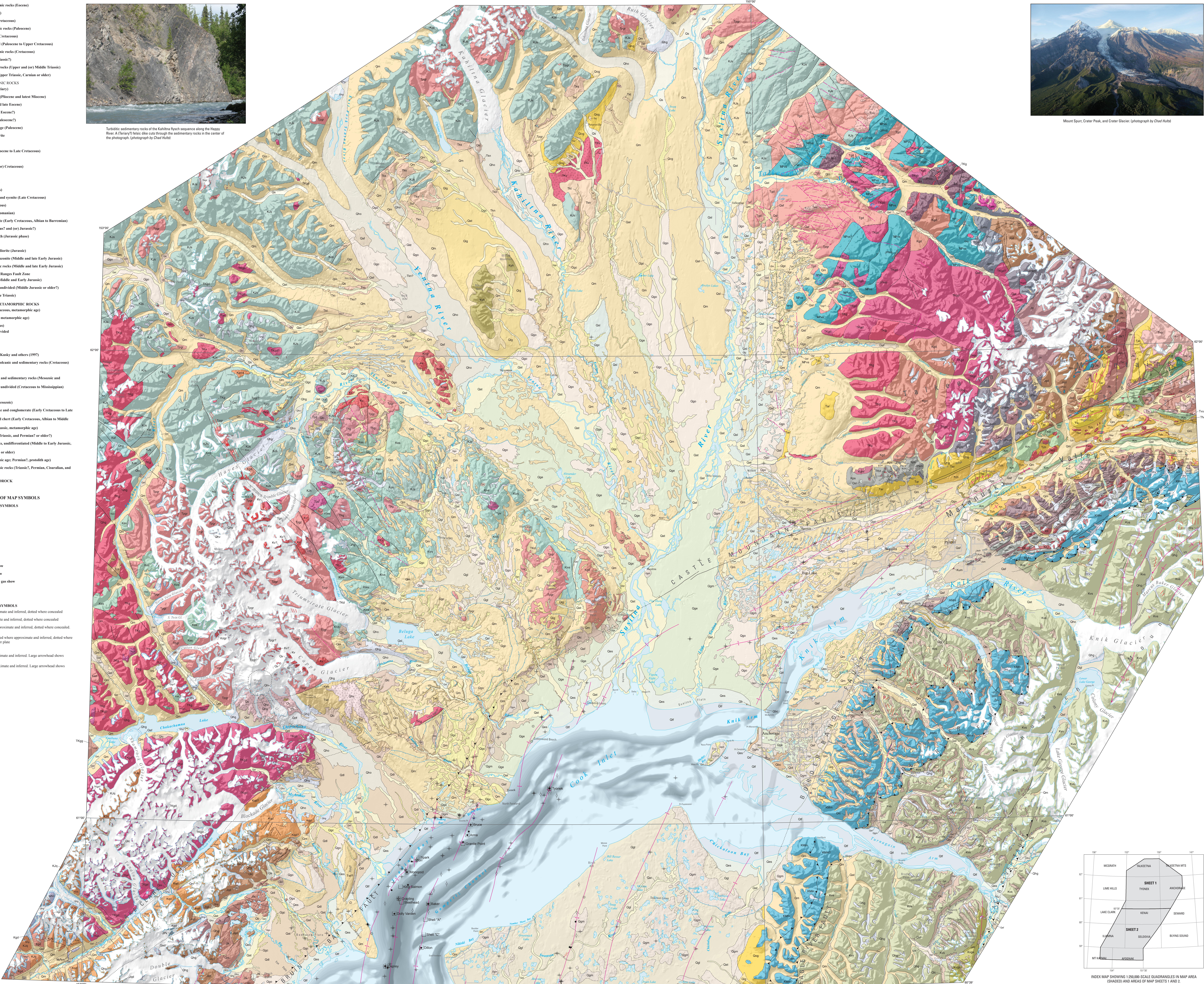
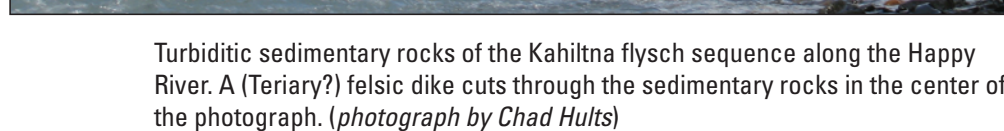
## BEDROCK

bu Bedrock, unknown

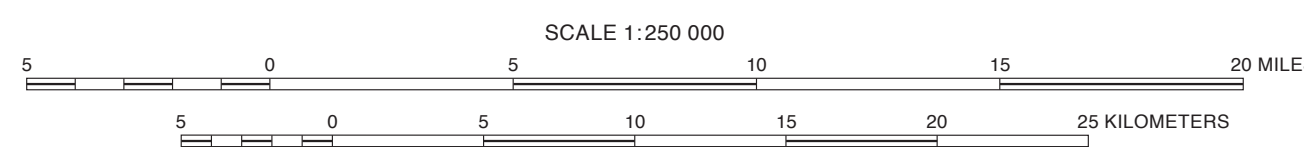
EXPLANATION OF MAP SYMBOLS	
WELL SYMBOLS	
	Platform
	Well, undrilled
	Gas producer
	Oil producer
	Gas injection
	Water injection
	Plugged and abandoned
	Plugged and abandoned gas shoe
	Plugged and abandoned oil shoe
	Plugged and abandoned oil and gas shoe
	Suspended
	Water disposal
LINE SYMBOLS	
	Contact—Dashed where approximate and inferred, dotted where concealed
	Fault—Dashed where approximate and inferred, dotted where concealed
	Section on upper plate
	Three fault—Dashed where approximate and inferred, dotted where concealed

— High-angle reverse fault—Dashed where approximated. Shaded on upper plate.

VOLCANIC AND HYPMAGMAL ROCKS	
Qv*	Volcanic rocks, undivided (Quaternary)
Qv*	Dacitic to rhyolitic domes (Holocene)
Qv*	Volcanic rocks (Holocene)
Qv*	Andesite and dacite domes (Pleistocene)
Qv*	Old volcanic rocks, undivided (Pleistocene or Pliocene)
Tv*	Tertiary volcanic rocks, undivided (Tertiary)
Th	Basaltic volcanic rocks (Pliocene)
Tg*	Gibraltar Luff Tuff (Pliocene? to Oligocene?)
Tm*	Paleogene volcanic rocks, undivided (Oligocene and Eocene)
Taf*	Basalt and andesite
Tef*	Tuffaceous felsic volcanic rocks (Eocene?)



Hydrographic information derived from USGS 1:62,500 scale D/G data  
Shaded relief derived from USGS 2 arc second NED data  
Shaded bathymetry derived from NOAA National Geophysical Data Center data  
Alaska Albers Equal Area projection; North American Datum 1927



**Geologic Map of the Cook Inlet Region, Alaska**  
Including parts of the Talkeetna, Talkeetna Mountains, Tyonek, Anchorage, Lake Clark, Kenai, Seward, Iliamna, Seldovia, Mount Katmai, and Afognak 1:250,000-scale Quadrangles

Compiled by  
Frederic H. Wilson, Chad P. Hults, Henry R. Schmoll, Peter J. Haeussler, Jeanine M. Schmidt, Lynn A. Yehle, and Keith A. Labay  
2012